QUALITY MONITORING INSTRUCTION FOR INSPECTION	Issue No : 01 Rev No :
	Date of Issue 18/08/2021
44P 04010 (RECEIVER BUSHING)	OFT/MI/AMR/44P 04010

Rev.No	Amendment	Date

MATERIAL SPECIFICATION : GOST 4543-71, 30XH2MØA
ALTERNATE MATERIAL : BS 970 PT.1 1983 GR.826 M31 (or) EN 25.

CONDITION OF SUPPLY : FULL FINISHED WITH FIRM'S MATERIAL

END USE : 14.5 /20mm AMR.

INSPECTION CHECK TO BE CARRIED OUT

Table 'A'

SL NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	Visual	The Rod shall be free from defects such as rust, scale, burrs and any other harmful defects.	100%
2.	Dimension	100% Dimension to check as per drawing	
3.	Chemical Composition (%)	**GOST 4543-71, 30XH2MØA** C = 0.27-0.34 V = 0.10-0.18 Si = 0.17-0.37 Mo = 0.20-0.30 Mn = 0.30-0.60 Cu = 0.20 (Max) Cr = 0.60-0.90 S = 0.015 (Max) Ni = 2.0-2.4 P = 0.020 (Max) **BS:970 Pt.1, 1983 GR.826 M31** C = 0.27-0.35 Mo = 0.45-0.65 Si = 0.10-0.35 S = 0.040 (Max) Mn = 0.45-0.70 P = 0.035 (Max) Cr = 0.50-0.80 Ni = 2.30-2.80 **EN-25** C = 0.27-0.35 Mo = 0.40-0.70 Si = 0.10-0.35 V = 0.05 (Max) Mn = 0.50-0.70 S = 0.050 (Max) Cr = 0.50-0.80 P = 0.050 (Max) Ni = 2.30-2.80 (Permissible variations in value as per specification standard)	One Sample Per Heat

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4.	Mechanical Properties	**GOST 4543-71, 30XH2MØA** Tensile Strength 90Kgf/mm^2 (Min) Yield Strength 80 Kgf/mm^2 (Min) Elongation 10% (Min) Reduction of area 40% (Min) Izod 9 Kgf/cm^2 (Min) (Cross section of blanks to be heat treated 25mm dia) **BS:970 Pt.1, 1983 GR.826 M31 ('W' CONDITION)** Tensile Strength 1075-1225 N/mm^2 Yield Strength 940 N/mm^2 (Min) Elongation (5.65√A) 11% (Min.) Izod Impact 30 Ft.lb (Min). **EN-25 ('X' CONDITION)** Tensile Strength 75 Tonns/Sq.In (Min) Yield Strength 63 Tonns/Sq.In (Min) Elongation 14% (Min.) Izod Impact 25ft.lb (Min).	One Sample Per Heat
5.	Hardness	Hardness 34-41 RC (as per drawing).	Each Consignment
6.	Packing	The Packing of the Material shall be done in such a manner to avoid corrosion and damage in handling and transit.	
7.	Marking	Each Packing shall oe legibly marked with manufacturer's identity , Qty, Heat No, OFT Supply order No etc.,	

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Note:

1. The Raw material/component/forging/casting to be tested by the firm on selection of the sample by the firm itself for chemical composition and mechanical properties in NABL accredited approved Lab as per Table 'A'.

2. The Firm has to check for the dimensions, visual defects, packing and marking as per Table 'A'. After completion of tests as per Note-1 as above, the Firm has to submit the following documents to OFT.

   I. The Raw material certificate from the original manufacturer, Heat number, and quantity purchased and number of bars is to be mentioned in the inspection letter to OFT.
   II. The Chemical and Mechanical test certificates from NABL accredited approved lab as per Table 'A'.
   III. Raw material sample minimum of 300mm should be supplied for cross verification along with the first supply of stores.
   IV. Dimensional reports including visual as per Table 'A'.
   V. Guarantee / Warrantee certificate of supplier against the supply.

3. All the above Documents mentioned at Note No.2 above are to be forwarded to GM/OFT along with supply.

4. OFT shall verify all the documents as above and accord clearance to the firm for dispatch of the material to OFT if all documents are in order.

5. OFT/Trichy shall verify all the parameters as per Table 'A' and after satisfactory results, the material will be accepted /cleared accordingly.

6. Material has to be replaced 100% by the firm in case of non-conformity to specification as per Table-A, during inspection at OFT, Trichy.

VERIFICATION OF INSPECTION DOCUMENTS

SL_NO	INSPECTION DOCUMENTS
1	The Raw material original Manufacturer's certificate, Details of Heat Number, Quantity purchased and number of Bars etc.,
2	The Chemical and Mechanical test certificates from NABL accredited approved Lab.
3	Dimension report including visual.
4	Packing slip details.

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